UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

NUCLIMATE AIR QUALITY SYSTEMS, INC., AND JAMES MILLER,

Plaintiffs,

-v.-

5:08-CV-0317 (NPM/GJD)

M&I HEAT TRANSFER PRODUCTS, LTD.,

Defendant.

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CELIA E. MOORE

Neal P. McCurn, Senior District Judge

MEMORANDUM, DECISION AND ORDER

I. Introduction

Presently before the court is a motion by defendant and counter-plaintiff, M&I Heat Transfer Products, Ltd. ("M&I") for a preliminary injunction pursuant to Fed. R. Civ. P. 65, enjoining plaintiffs and counter-defendants, NuClimate Air Quality Systems, Inc. ("NuClimate") and James Miller ("Miller") (collectively, "Plaintiffs") from infringing U.S. Patent No. 6,623,353 ("the '353 patent"). Plaintiffs oppose, and M&I replies. Oral argument was heard regarding the pending motion on July 10, 2008 in Syracuse, New York. Decision was reserved.

II. Background

The subject matter of the '353 patent is an "air handling system that provides heated or cooled air to an enclosed space, for example, a school classroom . . . that includes four induction units that use the Venturi effect to provide a mixture of primary air and return air to an enclosed space." Decl. of Muammer Yazici, May 14, 2008, ¶ 1, Dkt. No. 13-3. See also Ex. A to Am Compl. (the '353 patent). The '353 patent was issued on September 23, 2003 to inventors Salman Akhtar ("Akhtar") and Gerhard Granek ("Granek") and assignee, Air Handling Engineering, Ltd. M&I is the current owner of the '353 patent. See Yazici Decl., ¶ 1. M&I contends that NuClimate unlawfully sells two air handling systems that infringe the '353 patent: the Q-4 air terminal and the Q-360 air terminal.

Plaintiff Miller, Vice President and twenty-five percent owner of

NuClimate, alleges that he "initially conceived, and brought to M&I, the idea of a four-way induction unit." Decl. of James Miller, June 23, 2008, ¶ 18, Dkt. No. 26 ("Miller Decl."). "Sometime between 1999 through 2001" Miller, who was working as a consultant on the Diven school project in Elmira, New York, came into contact with William Shultes ("Shultes") who worked for R.L. Kistler, a manufacturer's representative that was supplying equipment for the project. Decl. of William R. Shultes, June 20, 2008, ¶ 4, Dkt. No. 23 ("Shultes Decl."). See also Miller Decl., at ¶ 5. Shultes introduced Miller to M&I, "because [he] knew that it designed and manufactured induction units, and [he] thought M&I would be able to help [Miller] refine and test his concept." Shultes Decl. ¶ 5. According to Shultes, "[Miller] conceived of the idea of an induction assembly with a square configuration utilizing four induction units". . . and communicated the idea to Shultes "before [Shultes] put [Miller] in touch with M&I." Id. ¶ 4.

Miller contends that he spoke with the then president of M&I, Dippti Datta ("Datta") and "told him about the idea of having a four-way induction unit." Miller Decl. ¶ 6. Datta suggested Miller speak with Akhtar, who was employed by M&I at that time. See id. Miller contends he also "described his concept of having a four-way induction unit to [] Akhtar, and asked him to implement it." Id. However, Miller contends "[r]ather than develop an integrated unit, . . . M&I simply arranged four of their preexisting single induction units together as four sides of a square[,] [which] did not accomplish my goals of having a single air and water connection with induced room air directly entering the unit from the room." Id. Nonetheless, Miller states that he continued to work with Akhtar "to try to improve the M&I product . . . [and] [a]fter several months, we decided to install the prototype in a room at M&I's offices in Canada to see how it performed." Id.

at ¶ 7. According to Miller, "M&I set up a test area to demonstrate its unit so that the attendees could see the air flow patterns and effectiveness of the ventilation system." Miller Decl. ¶ 7.

At oral argument, Plaintiffs submitted to the court a copy of a facsimile cover sheet and attached diagrams which are dated February 23, 2001, and are addressed to the attention of Akhtar at M&I from Miller. See Tr. of Oral Argument at 8:18-9:5, 15:18-16:15. Dkt. No. ___ ("Tr."). The message states, in relevant part, "[e]nclosed is our interpretation of what the small quad unit will look like. This drawing is taken from the drawings being prepared for the Diven project. These units will be made up of MLD-48 units ... [.]" Attached is one diagram labeled, "Test Room" and another labeled "Quad Model." Another diagram labeled "Floor Plan" was submitted by M&I and is purported to be "a drawing showing the layout of the M&I facility displaying the patented invention ... [which] specifically identifies the locations of the patented invention." Yazici Decl. ¶ 10, Ex. F. The diagram is dated July 25, 2001. See id.

By electronic mail to Akhtar, Datta and Shultes on July 6, 2001, Miller confirmed "our trip to M&I on ... July 31, 2001." Miller further stated that "[] Datta (president of M&I) and [] Akhtar (engineering manager) will host us and be able to answer any questions pertaining to the induction units. I will answer any questions about the total systems being designed for them at Diven and Hendy. We will also be able to demonstrate the air flow patterns and effectiveness of the ventilation system through the use of smoke bombs." Ex. 1 to Miller Decl.

Miller claims "[t]he demonstration showed that M&I's design did not achieve my goals for the system[,]" and that M&I's design was "inefficient" and "drew unfiltered air from above the ceiling, potentially introducing dirt, mold and

other particles ... into the occupied spaces." Miller Decl. ¶ 8. See also Shultes Decl ¶ 8. Consequently, according to Miller, "[Shultes] and I ... decided to take control of designing and building a prototype unit[,]" and "purchased four induction units from M&I to integrate into our design." Id. See also Shultes Decl. ¶ 6.

By letter dated August 6, 2001, Miller told Datta that "the total impact [of the presentation] on everyone involved was a very positive image" and "[t]he results that we have gotten at your demonstration room were as predicted." Ex. 2 to Miller Decl. Miller also stated that "[t]he air handler design that [Akhtar] has come up with incorporating the heat recovery system with it, makes the system easier to install for renovation projects." Id. However, Miller also noted that he and Shultes have had further conversations since the demonstration "about developing some further refinements on the appearance and packaging of our Quad Systems. We want to make them easier to install and more flexible to apply. Since M&I is not equipped with sheetmetal shops and pipe fitters to assist in packaging, we have decided to purchase four induction units from you and continue to do some further refinements on the packaging of these systems under our direct supervision here locally." Id. Datta replied to Miller thanking him for organizing the trip and "making every effort to demonstrate the ceiling mounted induction unit as being the possible, if not the best solution, for the upcoming school market." Ex. 7 to Miller Decl. Datta went on to state that "[t]he full credit goes to your commitment to augment the existing systems, which other consultants have left for someone in the future to address. The only distinction I make, is that you had the foresight and conviction to face stiff opposition in and around you, and despite that fact you decided to forge ahead because you knew this industry

needs a heavy dose of infusion knowledge based solution. We, at M&I, played a very small role in giving fruition." Id. Datta also told Miller that "you can convey to your clients that we would be participating in the commissioning of the systems under your guidance and make sure that the systems will perform in compliance with your specification." Id.

After Miller and Shultes purchased the induction units from M&I, they continued working on a design in Syracuse, New York. See Miller Decl. ¶ 9; Shultes Decl. ¶ 6. According to Shultes, "[a]fter our design was finalized and the prototype tested, I sent drawings of our design, as well as our performance metrics, to M&I." Shultes Decl. ¶ 7. By facsimile dated November 27, 2001, Shultes sent a design drawing to Muammer Yazici,[1] labeled "M&I Air Wedge" with the following written introduction, "[t]he final diffuser design is shown on enclosed. We have tested, tested & tested and balanced and the enclosed performance is enclosed. The copper sweat coil connection will be on unit side per [] Miller's request. Will keep you informed." Ex. 9 to Miller Decl.; Ex. B to Shultes Decl. Shultes explained that he "created the sketches and drawings contained in [the facsimile], which were intended to show M&I our design. At that time, we had planned that M&I would be responsible for manufacturing the unit and that Kistler would be the manufacturers' representative for the product. [The facsimile] therefore refers to the design as an M&I product, although it was designed by me and [] Miller. In fact, because I did not know what to name the product at the time, I referred to it [] as the 'M&I Air Wedge,' which was the name

[1] Yazici became president of M&I in January 2006. See Yazici Decl. ¶ 1. It is unclear what Yazici's position at M&I was on November 27, 2001, when the referenced facsimile was sent.

of an existing M&I product with two induction units." Shultes Decl. ¶ 7. See also Miller Decl. ¶ 17. Miller explains, "[a]lthough I believed that the product [Shultes] and I designed would be the best induction unit for [the Diven] project, it would have been a conflict of interest for me to recommend a product I designed and with which I was involved in the manufacture. At that time, therefore, M&I was going to sell the product I conceived. (M&I eventually decided, however, not to manufacture or sell our design.)" Miller Decl. ¶ 16.

On January 25, 2002, a meeting apparently took place between Datta, Yazici, Shultes and Miller regarding the "Development, Assembly, Engineering and Marketing of Induction Units," as evidenced by minutes which were prepared by Miller, and submitted to the court by both parties. See Miller Decl. ¶ 8; Yazici Decl. ¶ E. The minutes reflect that the attendees "discussed construction of induction units, regarding coil and air leakage. Leakage to be addressed by M&I." Id. The minutes also reflect that "[t]hree equal partners are M&I, [] Shultes and [] Miller" and that "[] Akhtar, [] Miller and [] Granek are on patent application." Id.

Eventually, Miller's and Shultes's design was embodied in a patent application they filed April 25, 2002, which matured into U.S. Patent No. 6,569,010, issued on May 27, 2003 ("the '010 patent"). See Shultes Decl. ¶ 6; Miller Decl. ¶ 9. "Around this time, [Miller] was made aware that M&I was filing its own patent application on its embodiment of an induction assembly with four induction units ... ." Miller Decl. ¶ 10. On March 11, 2002, Miller wrote to Yazici[2] noting his receipt of a Power of Attorney and Assignment of Patent Application, but stating, "I cannot sign these papers." Ex. 4 to Miller Decl.; Ex. D

[2] Although addressed to "Maummer (sic) Yazici" at M&I, the salutation of the March 12, 2002 letter reads, "Dear Salman." Ex. 4 to Miller Decl.; Ex. D to Yazici Decl.

to Yazici Decl. Miller went on to explain that he has not seen the patent application and "cannot in good conscience sign a Declaration claiming to be an inventor of an invention described in a patent application I have not seen nor read." Id. Miller also stated, "I am unaware of any invention [Akhtar], [Granek] and I have worked on that would qualify us as co-inventors" and "I am also disappointed that you expected me to sign away all rights for my system to a business unknown to me and from which I can expect no benefits." Id. Yazici replied to Miller by letter, to which a copy of the '353 patent application was ostensibly attached, suggesting that Miller and Shultes form an LLP so that the LLP can endorse a contract with M&I, in order that "some financial benefits would accrue to the participants when these 'quad induction units' are sold to the school market." Ex. 5 to Miller Decl. Yazici also stated, "[a]s far as M&I is concerned you, [] Akhtar and [] Granek were all involved in the development of this product and will be named as inventors." Id. In an electronic message sent April 3, 2002 Miller told Yazici, "I don't think we have much to talk about until we get the order for the D[]iven job. The patent application does a good job of describing your induction units, but other than showing them in a square configuration it does not have anything to do with my design and you don't need to have my name on that application." Ex. 6 to Miller Decl.; Ex. B to Granek Decl. Miller explains that he "did not believe [M&I's] patent application described [his] invention or that the design therein functioned in an efficient manner." Miller Decl. ¶ 13. Significantly, Miller admits he did not show his April 3, 2002 electronic message to his patent attorney "to investigate what effect it would have on [his] pending patent application." Id.

Yazici claims he was initially "under the impression that [] Miller was

involved in the development of the invention sent forth in the '353 patent[,]" and therefore "had his name put on the inventor's declaration and power of attorney that was to accompany the M&I patent application ... ." Yazici Decl. ¶ 6. Yazici further states that "Miller informed me on April 3, 2002 that he was not an inventor of the subject matter of the M&I patent application ..." and relying on same, he removed Miller's name from said application. Id. Granek, one of the two named inventors listed on the '353 patent, states that he "worked with [] Akhtar in developing the invention set forth in the '353 patent[,] [but does] not have any recollection of [] Miller making any contribution ... [and therefore has] no reason to dispute [] Miller's assertion ... that 'you don't need to have my name on that application.'" Decl. of Gerhard Granek, April 25, 2008, ¶¶ 3, 4, Dkt. No. 13. Granek further notes that "[his] memory of the events regarding development of the invention set forth in the '353 patent has faded as these events occurred a number of years ago." Id. ¶ 5.

A patent application was submitted, with only Akhtar and Granek listed as inventors, on May 7, 2002. The'353 patent was awarded on September 23, 2003, just shy of four months after Shultes and Miller were awarded the '010 patent. On March 12, 2008, M&I issued a cease and desist letter to NuClimate, demanding it "immediately cease and desist in the manufacture, use, sale and/or offer for sale of the Model Q-4 air terminal." Ex. A to Am. Compl., Dkt. No. 5.

One week later, Plaintiffs commenced this lawsuit pursuant to 35 U.S.C. §§ 256 and 283 seeking declaratory and injunctive relief only. Plaintiffs request an order declaring that (1) M&I is without right to sue Plaintiffs for infringement of the '353 patent; (2) the '353 patent is invalid; (3) the '353 patent is not infringed by NuClimate; and (4) NuClimate has the right to continue to do business without

interference from M&I arising from their ownership of the '353 patent. Plaintiffs also seek an injunction enjoining M&I from prosecuting any action against NuClimate's buyers, sellers or users based on alleged infringement of the '353 patent and enjoining M&I from charging that NuClimate's Model Q-4 air terminal infringes the '353 patent. Plaintiffs request in the alternative that the court order the correction of the named inventors of the '353 patent to include Miller. M&I countersues Plaintiffs for infringement of the '353 patent, seeking an injunction enjoining Plaintiffs from further infringement as well as damages.

By the present motion, M&I contends that NuClimate unlawfully sells two air handling systems that infringe the '353 patent: the Q-4 air terminal and the Q-360 air terminal. M&I further contends it is suffering and will continue to suffer irreparable harm due to Plaintiffs' infringement of the '353 patent. M&I alleges that it has lost jobs in the U.S. market because NuClimate has underbid M&I using M&I's patented technology. M&I further contends that Plaintiffs do not have the financial resources to satisfy a money judgment in this case.

Plaintiffs argue that M&I has known about the Q-4 since 2004, and their delay in bringing suit negates a finding of irreparable harm. Plaintiffs also contend that they have ceased selling or manufacturing the Q-4 pending the outcome of this litigation and therefore, an injunction is unnecessary. See Decl. of John A. DiMillo, June 20, 2008, ¶ 7, Dkt. No. 25 ("Dimillo Decl."). Plaintiffs further argue that the Q-360 does not infringe the '353 patent; the '353 patent is invalid because the invention disclosed therein is obvious; and Miller is not estopped from asserting that he invented the four unit induction system. Plaintiffs contend that M&I cannot establish irreparable harm regarding the Q-360 because the damages alleged - - price erosion and loss of market share - - are compensable

by monetary damages, and it has failed to demonstrate what a likely judgment might be and why Plaintiffs are unable to satisfy such a judgment.

For the reasons that follow, M&I's motion for a preliminary injunction is granted as to Plaintiffs' Q-4 model, but is denied as to the Q-360 model.

III. Discussion

Initially, it is important to note that it is the law of the Court of Appeals for the Federal Circuit which governs preliminary injunctions in patent cases. See Hybritech Inc. v. Abbot Labs., 849 F.2d 1446, 1451 n.12 (Fed. Cir. 1988). Accordingly, this court is bound by Federal Circuit, not Second Circuit, precedent in deciding the present motion.

A. Standard of Review

Injunctive relief in patent cases is authorized by statute. Pursuant to 28 U.S.C. § 283, "courts . . . may grant injunctions in accordance with the principles of equity to prevent the violations of any right secured by patent, on such terms as the court deems reasonable." The party seeking a preliminary injunction, here M&I, has the burden to show entitlement to same. See Reebok Int'l Ltd. v. J. Baker, Inc., 32 F.3d 1552, 1555 (1994). In deciding whether to grant a preliminary injunction, the court must consider the following four factors: (1) the movant's reasonable likelihood of success on the merits; (2) the irreparable harm the movant will suffer if preliminary relief is not granted; (3) the balance of hardships tipping in its favor; and (4) the adverse impact on the public interest. See id. Although all four factors must be considered when deciding to *grant* a preliminary injunction, the Federal Circuit has "specifically decline[d] ... to require a district court to articulate findings on the third and fourth factors when the court *denies* a preliminary injunction because a party fails to establish *either* of

the two critical factors." Id., at 1556 (emphasis in original).

In order to establish a reasonable likelihood of success, M&I must establish that the '353 patent is valid, and that Plaintiffs have infringed same. See Reebok, 32 F.3d at 1555. However, a patent is "presumed valid[,]" and "[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity." 35 U.S.C. § 282. Thus, in order to avoid a showing of likelihood of success here, Plaintiffs "must show a substantial question of invalidity" of the '353 patent. Erico Int'l Corp. v. Vutec Corp., 516 F.3d 1350, 1354 (Fed. Cir. 2008).

Next, in order to prevail on its motion, M&I must also at the very least establish that it will suffer irreparable harm if the preliminary injunction is not granted. See id. However, should M&I establish "[a] strong showing of likelihood of success on the merits coupled with continuing infringement" a presumption of irreparable harm is raised. Id., at 1556. The presumption is rebuttable, though, as the burden would then shift to Plaintiffs, who carry the "ultimate burden of production on the question of irreparable harm." Id.

B. The Q-4

1. Irreparable Harm

Plaintiffs make clear that for purposes of the present motion, they do not contest infringement of the '353 patent by the Q-4. See Tr., at 9:25-10:1; 23:5-7. However, Plaintiffs do argue that M&I has not established that it will be irreparably harmed absent a preliminary injunction. Plaintiffs argue that M&I cannot show irreparable harm because 1) it has been aware of the Q-4's existence since 2004, and 2) NuClimate has ceased manufacturing or selling the Q-4 pending resolution of this litigation. See Decl. of John A. DiMillo, June 20, 2008,

¶ ¶ 7, 8, Dkt. No. 25 ("DiMillo Decl.").

Plaintiffs' first argument carries little weight. According to Plaintiffs, in 2004, M&I's current CEO, Wais Jalai ("Jalai"), viewed a Power Point presentation that included information regarding the Q-4, which was exhibited by NuClimate Vice President John DiMillo. However, Jalai declares that he did not purchase M&I until "August or September of 2007." Decl. of Wais Jalai, June 30, 2008, ¶ 2, Dkt. No. 27-6 ("Jalai Decl."). Prior to that time, he was not an employee, owner or officer of either M&I or any of its parent or subsidiary companies, and did not have any knowledge of the '353 patent, which is owned by M&I. See id. ¶¶ 2, 5. Therefore, in 2004, not only would Jalai have had no reason to suspect that the Q-4 was relevant to any M&I patent, he was not in any position to enforce such a patent. See id. ¶ 5. Accordingly, Plaintiff's argument in that respect does not support its overall contention of lack of irreparable harm.

Plaintiff's second argument, however, warrants some discussion. John A. DiMillo, Vice President of Sales and Marketing for NuClimate, states that NuClimate ceased manufacture of the Q-4 immediately after receiving the first communication from M&I of an infringement complaint. See DiMillo Decl. ¶ 7. Plaintiffs argue that because the Q-4 is no longer in production, M&I cannot establish irreparable harm in the absence of a preliminary injunction. M&I counters that NuClimate's cessation of production of the Q-4 does not negate a finding of irreparable harm, citing W.L. Gore & Associates, Inc. v. Garlock, Inc., 842 F.2d 1275, 1281 -1282 (Fed. Cir. 1988). There, the court held, "[t]he fact that the defendant has stopped infringing is generally not a reason for denying an injunction against future infringement unless the evidence is very persuasive that further infringement will not take place." Id. In that case, the defendant stopped

production and sale of alleged infringing material at the time of trial without any explanation. See id. at 1282. Because no other evidence existed to support a conclusion that the defendant no longer had the capacity to make or sell the material, including the equipment necessary to do so, or that he had no intention to resume production, the court reversed the district court's order refusing to issue an injunction. See id. Here, however, an officer of NuClimate has stated that upon receipt of the first communication from M&I complaining of infringement, all sales and production of the Q-4 were ceased, all literature and information regarding the Q-4 was removed from NuClimate's website, and NuClimate will not offer the Q-4 for sale until a final ruling is made in this case. See Dimillo Decl. at ¶ 7.

At oral argument, M&I notes that here, as in W.L. Gore & Associates, Inc., DiMillo does not state that NuClimate no longer has the capacity to manufacture and sell the Q-4. See Tr., at 20:6-13. W.L. Gore & Associates, Inc., 842 F.2d at 1282. Accordingly, M&I argues, it has no way to protect its interests if the court denies its motion for a preliminary injunction, as there would be no legal basis upon which to prevent NuClimate from continuing its alleged infringement. M&I further argues that NuClimate, on the other hand, stands to lose nothing by an injunction here, if in fact they have stopped production and sale of the Q-4. M&I also points out that as of the date this litigation was commenced, Plaintiffs alleged, for jurisdictional purposes, that NuClimate "has been and is at present manufacturing and selling its Model Q-4 air terminal in the United States." Compl. ¶ 11. See Tr., at 19:20-6. M&I further notes that Plaintiffs re-asserted the same allegation when they filed their Amended Complaint on April 28, 2008. See Am. Compl. ¶ 12. These allegations, M&I argues, shed doubt on DiMillo's

contention that Plaintiffs have ceased production and sale of the Q-4.

Plaintiffs counter that DiMillo's declaration was signed after the Amended Complaint was filed and reiterate through counsel that they have no intention of bringing the Q-4 back on the market until this litigation is resolved. See Tr., at 22:8-17.

The court deems DiMillo's Declaration to be persuasive evidence that Plaintiffs have, in fact, ceased manufacture and production of the Q-4. Nonetheless, as M&I correctly points out, here, as in W.L. Gore & Associates, Inc., there is no evidence before the court which would support a conclusion that Plaintiffs no longer have the capacity to resume production and sale of the Q-4 if they so chose. Accordingly, M&I's argument that they would be irreparably harmed without an injunction has merit.

Nonetheless, M&I must still establish a likelihood of success on the merits of its infringement claim in order to prevail on its motion for a preliminary injunction. While it is true that Plaintiffs do not contest a likelihood of success on the merits of this claim insofar as it relates to the Q-4 for purposes of the pending motion, they do, however attack the validity of the '353 patent, which forms the basis for M&I's claims as to both the Q-4 and Q-360. Plaintiffs argue that (1) the '353 patent is invalid because it is obvious pursuant to 35 U.S.C. § 103, (2) the named inventors on the '353 patent should be amended to include Miller, or (3) a question of priority of invention is raised under 35 U.S.C. § 102(g). Because a finding in favor of Plaintiffs on any of these validity challenges will prevent a finding of a likelihood of success on the merits of M&I's infringement claim, the court will address those challenges next.

C. Likelihood of Success

1. Obviousness

Plaintiffs argue that the '353 patent is obvious, and thus invalid pursuant to 35 U.S.C. § 103. According to that statute,

> [a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

35 U.S.C. § 103 (2004). The Supreme Court has recently reiterated the framework for analysis of obviousness, which is an objective analysis, as follows:

> Under section 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

KSR Int'l Co. v. Teleflex Inc., — U.S. —, 127 S.Ct. 1727, 1734 (2007) (quoting Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18, 86 S.Ct. 684 (1966). As Plaintiffs point out, the Court went on to clarify that:

> [f]or over a half century, the Court has held that a 'patent for a combination which only unites old elements with no change in their respective functions ... obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men.' This is a principal reason for declining to allow patents for what is obvious. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.

KSR Int'l Co., 127 S.Ct. at 1739 (quoting Great Atl. & Pac. Tea Co. v.

Supermarket Equip. Corp., 340 U.S. 147, 152, 71 S.Ct. 127 (1950)).

Here, Plaintiffs argue that M&I simply took four of its preexisting induction units and arranged them in a square. In fact, Plaintiffs note that M&I previously patented the "wedge" which is an induction system where two induction units were combined. See Ex. A to Yazici Decl. (the '353 patent) at col. 2, referencing U.S. Patent No. 6,213,867. Plaintiffs argue that because the induction units operate in a group the same way they would as a single unit, M&I has merely combined "familiar elements according to known methods" and therefore, the subject matter of the '353 patent obvious, rendering it invalid. KSR Int'l Co., 127 S.Ct. at 1739.

> However, as the Supreme Court has made clear, it is important to note that a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

KSR Int'l. Co., 127 S.Ct. at 1741. Here, in designing an HVAC system for the Diven project, Miller stated that he "needed to have the induction units that currently existed on the market (which only blew in one or two directions) reconfigured so that they blew in four directions." Miller Decl. ¶ 5. As M&I points out, in support of the '010 patent application Miller argued that the prior art did not "disclose, use, suggest using, or anticipate using" four induction units.

See Decl. of David H. Voorhees, June 30, 2008, Ex. C at 5, Dkt. No. 27.

Moreover, as M&I points out, the previously patented "wedge" which Plaintiffs refer to was part of the prior art considered by the United States Patent and Trademark Office (PTO). "When the prior art was before the examiner during prosecution of the application, there is a particularly heavy burden in establishing invalidity." See Impax Labs., Inc. v. Aventis Pharm. Inc., 468 F.3d 1366, 1378 (Fed. Cir. 2006) (citing Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1467 (Fed. Cir.1990)).

Considering the deference owed to the PTO, which had the prior art before it when awarding the '353 patent, coupled with the fact that Miller himself admits that the use of four induction units is not in the prior art, Plaintiffs have not met their burden to show "a substantial question of invalidity" of the '353 patent based on obviousness. Erico Int'l Corp., 516 F.3d at 1354. That being the case, Plaintiffs cannot avoid a finding of a likelihood of success on the merits of M&I's infringement claim based on obviousness.

2. Correction of Named Inventor and Priority of Invention

Plaintiffs argue in the alternative that the named inventors listed on the '353 patent should be amended to include Miller pursuant to 35 U.S.C. § 256, or that at the very least, a question of priority of invention is presented under 35 U.S.C. § 102(g).

a. Correction of Named Inventor

An inventor who was erroneously omitted from a patent (a nonjoined inventor) may seek correction in federal court pursuant to 35 U.S.C. § 256. The statute provides a procedure for correction of nonjoined inventors on an issued patent as follows:

> Whenever through error ... an inventor is not named in an issued patent and such error arose without any deceptive intention on his part, the [PTO] may, on application of all the parties and assignees, with proof of facts and such other requirements as may be imposed, issue a certificate correcting such error.

35 U.S.C. § 256. Because, in a proceeding under section 256, named inventors on an issued patent are presumed to be correct, a claimed inventor, such as Miller here, bears a heavy burden of proving his case by clear and convincing evidence. See Finkelstein v. Mardkha, 495 F.Supp.2d 329, 337 (S.D.N.Y. 2007) (citing Hess v. Advanced Cardiovascular Sys., Inc., 106 F.3d 976, 980 (Fed. Cir. 1997)).

A district court may order correction of named inventors "on notice and hearing of all parties concerned and the [PTO] shall issue a certificate accordingly." 35 U.S.C. § 256. Therefore, the only procedural requirement imposed on a district court in deciding whether to order correction of named inventors are "notice and an opportunity for all parties to be heard." Stark v. Advanced Magnetics, Inc., 119 F.3d 1551, 1553 (Fed. Cir. 1997) (citing Iowa State Univ. Research Found., Inc. v. Sperry Rand Corp., 444 F.2d 406, 410 (4th Cir. 1971)). The substantive standards imposed by section 256 require an inquiry only as to the intent of the nonjoined inventor, here, Miller. See Stark, 119 F.3d at 1552. The Court of Appeals for the Federal Circuit has interpreted section 256, "constru[ing] the term 'error' to extend to mistakes, whether deceptive and 'dishonest' or merely uninformed and 'honest' ... [thereby concluding that] the statute allows correction in ... those nonjoinder cases where the unnamed inventor is free of deceptive intent." Id. at 1555.

Here, M&I argues that Miller cannot claim to have conceived the invention giving rise to the '353 patent, when he repeatedly claimed that he was not an

inventor of the design Akhtar and Granek sought to have patented in their application. M&I points to Miller's March 11, 2002 letter and April 3, 2002 electronic message as evidence that he disavowed his status as an inventor. See Ex. B. to Granek Decl.; Ex. D to Yazici Decl. Moreover, M&I notes, Miller continues to argue even now that the design embodied in the '353 patent application had nothing to do with his design and did not meet his goals for the system. M&I also argues that Shultes's November 27, 2001 facsimile clearly identifies the attached design as the "M&I Air Wedge" and therefore acknowledges that the invention was M&I's, not Miller's or Shultes's. See Ex. I to Yazici Decl.

Plaintiffs counter that Miller "clearly stated that [he] invented the concept of arranging four induction units in a square." Miller Decl. ¶ 13. Plaintiffs explain that Miller did not want to be named as an inventor on the '353 patent application because, as Miller stated, "I believed that I had conceived of a four-induction unit system and that the system I designed with [] Shultes was our invention, not M&I's . . . [and] I was in the process of filing a patent application on that invention." Miller Decl. ¶ 10.

M&I further argues that Plaintiffs are barred by laches and equitable estoppel from seeking correction of inventors or claiming ownership of the '353 patent. The doctrine of equitable estoppel applies to claims of ownership or co-inventorship, just as it does to claims of patent infringement. See MCV, Inc. v. King-Seeley Thermos Co., 870 F.2d 1568, 1571 (Fed. Cir. 1989). In MCV, the court found that the following must be proved by the party asserting equitable estoppel against a claim of co-ownership in order to prevail: "1) unreasonable and inexcusable delay in filing suit, (2) prejudice to the defendant as a result of the

delay, (3) affirmative conduct by the party against whom estoppel is asserted inducing the belief that it had abandoned its claim, and (4) detrimental reliance by the party asserting estoppel." Id. Later, the court overruled that standard, insofar as it required unreasonable delay. See A.C. Aukerman Co. v. R.L. Chaides Const. Co., 960 F.2d 1020, 1041-42 (Fed. Cir. 1992) (en banc). Accordingly, only the last three elements, to wit, prejudice, affirmative conduct, and reliance, are required to prove equitable estoppel.

In order to prevail on an affirmative defense of laches, the party asserting same must prove "(1) unreasonable and unexcused delay in bringing the claim, and (2) material prejudice to the defendant as a result of the delay." Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc., 988 F.2d 1157, 1161 (Fed. Cir. 1993) (citing A.C. Aukerman Co., 960 F.2d at 1028)). Laches is an equitable defense and the reasonableness of the delay in bringing suit "is to be determined by consideration of justice, and that is dependent upon the circumstances of each particular case." Advanced Cardiovascular Sys., Inc., 988 F.2d at 1161 (quoting Des Moines Terminal Co. v. Des Moines Union Ry. Co., 8 Cir., 52 F.2d 616, 630 (8th Cir. 1931)).

In the case of a claim of ownership or correction of inventorship, the period of time on a defense of laches begins to run when the party claiming ownership or correction of inventorship knew or should have known that a patent had issued, not necessarily the date of issue. See id., at 1162. "[A] delay of more than six years after the omitted inventor knew or should have known of the issuance of the patent will produce a rebuttable presumption of laches." Id., at 1163. Such a presumption may be rebutted by evidence that the delay was reasonable. See id.

M&I argues that Miller's conduct led it to believe he was not an inventor on

the '353 patent, M&I relied on said conduct to its detriment by removing Miller's name as an inventor, and as a result M&I suffered material prejudice in expending considerable resources to develop and enforce its patented invention. Therefore, M&I argues, Plaintiffs are equitably estopped from asserting ownership or correction of inventorship of the '353 patent. M&I further argues that Plaintiffs' claims are barred by laches, as they delayed for over six years in filing this lawsuit.

In support of its delay argument, M&I hangs its hat on the March 11, 2002 letter from Miller, see Ex. D to Yazici Decl., and the fact that Plaintiffs did not commence the present action until March 18, 2008, less than one week over six years from the date of the letter. Notably, in the March 11, 2002 letter, Miller specifically states that he had not yet seen the patent application and therefore, could not sign the papers assigning M&I rights to apply for a patent on his behalf. See id. It was not until his April 3, 2002 electronic message that Miller indicated receiving the patent application but stated that "it does not have anything to do with my design and you don't need to have my name on that application." Ex. 6 to Miller Aff .

Plaintiffs argue that neither equitable estoppel nor laches prevents Miller from correcting inventorship or ownership on the '353 patent. First, regarding the alleged delay on the part of Miller, Plaintiffs argue there is no evidence that Miller knew of the existence of the '353 patent or that the application for said patent was ever actually filed until Plaintiffs received M&I's cease and desist letter. See Tr., at 14:14-15:9. To the extent Plaintiffs seek to avoid a finding of delay on this basis, their argument is unavailing. It is clear to the court that Miller possessed enough information that he should have known an application would be filed and

accordingly should have pursued any correction of inventorship claim in a timely manner.

Next, Plaintiffs argue that M&I suffers no prejudice by a correction of inventorship, which is a requirement for either defense, because it has not licensed the '353 patent, nor has it manufactured units which embody the patented technology. At oral argument, Plaintiffs point out there is a lack of evidence that M&I has licensed or sold any technology which uses the invention embodied in the '353 patent, specifically pointing to an absence of any allegation regarding same in Yazici's declaration. See Tr., at 16:21-17:2.

Also at oral argument, M&I asserted that MCV, Inc., wherein the court held that the appellant was equitably estopped from asserting a co-inventorship claim, is factually indistinguishable from this case. See Tr., at 58:22-25. However, in MCV, Inc. the court found prejudice because it concluded that there, the result of correction of inventors under section 256 could be to jeopardize the business appellee had developed in a certain market in which it did not operate prior to its development of the patented invention at issue, citing for support a case where "uncontroverted evidence of capital investments ... constitutes prejudice ... ." MCV Inc., 870 F.2d at 1573-74 (citing Jamesbury Corp. v. Litton Indus. Prods., Inc., 839 F.2d 1544, 1554 (Fed. Cir. 1988) (overruled on other grounds). That is not the case here, at least not on the evidence presently before the court. First of all, unlike MCV, Inc. where the court found the appellee had developed business in a market in which it had not operated prior to the development of the patented invention, the evidence here suggests that M&I has been in the HVAC market for some time. Moreover, as Plaintiffs correctly argue, there is no evidence to suggest that M&I has licensed the '353 patent or manufactured units which embody the

patented technology. Accordingly, M&I is unable to show that it has suffered prejudice as a result of Plaintiffs' delay, or that it relied on Plaintiffs' conduct to its detriment, and therefore cannot show a likelihood of success on its laches or equitable estoppel defenses to Plaintiffs' correction of inventors claim.

Keeping in mind that it is Miller who bears the burden of establishing that he is entitled to a correction of the listed inventors on the '353 patent, and considering Miller's explanation that he believed the four-induction unit system was his invention, not M&I's, there is a significant question whether his refusal to be named as an inventor on the '353 patent application, including his claims to M&I that the design embodied in the application "does not have anything to do with my design" and that "you don't need to have my name on that application[,]" Ex. 6 to Miller Aff., was deceptive or dishonest. Therefore, without further evidence to support a conclusion to the contrary, the court is unable to find that Plaintiffs have met their burden to show that correction of inventors on the '353 patent is warranted. Accordingly, Plaintiffs may not avoid a finding of a likelihood of success on the merits of M&I's infringement claim on this basis.

b. Priority of Invention

Plaintiffs next claim that "[a]t the very least, a question of priority of invention arises under 35 U.S.C. § 102(g)." Pls.' Mem. of Law in Opp'n at 20. Pursuant to section 102(g),

> a person shall be entitled to a patent unless ... (1) during the course of an interference ..., another inventor involved therein establishes ... that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or (2) before such person's invention thereof, the invention was made in this country by another inventor who has not abandoned, suppressed, or concealed it.

35 U.S.C. § 102(g) (2002). Under the statute, "priority of invention goes to the first party to reduce an invention to practice unless the other party can show that it was the first to conceive of the invention and that it exercised reasonable diligence in later reducing that invention to practice." Medichem, S.A. v. Rolabo, S.L., 437 F.3d 1157, 1169 (Fed. Cir. 2006) (quoting Cooper v. Goldfarb, 154 F.3d 1321, 1327 (Fed. Cir. 1998)).

By statute, a district court has jurisdiction over an interference proceeding, which is brought through a civil action by the owner of an interfering patent, as follows:

> The owner of an interfering patent may have relief against the owner of another by civil action, and the court may adjudge the question of the validity of any of the interfering patents, in whole or in part.

35 U.S.C. § 291. An interference proceeding "is a proceeding ... to determine any question of patentability and priority of invention between two or more parties claiming the same patentable invention." Eli Lilly & Co. v. Aradigm Corp., 376 F.3d 1352, 1365 (Fed. Cir. 2004) (quoting 37 C.F.R. § 1.601(i)).[3] In order to succeed in such a proceeding, even where, as here, it is conducted in a district court pursuant to section 291,

> a party that does not have the earliest effective filing date needs only to demonstrate by a preponderance of the evidence that it was the first to invent if the two patents or applications at issue were co-pending before the PTO.

Eli Lilly & Co., 376 F.3d at 1365 (citing Slip Track Sys., Inc. v. Metal-Lite, Inc.,

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[3] Citation is to the version of the C.F.R. in effect at the time the patent applications at issue here were pending. Subsequent revisions do not affect the issues of this case. As of July 1, 2006, patent interferences are at 37 C.F.R. part 41. See Vas-Cath, Inc. v. Curators of Univ. of Missouri, 473 F.3d 1376, 1379 (Fed. Cir. 2007)).

304 F.3d 1256, 1262 (Fed. Cir.2002)). Moreover, it is important to note that because the general presumption of patent validity does not apply before a patent issues, when, as here,

> the applications were co-pending, the timing of the interference proceeding is immaterial: the presumption of validity is nonexistent and the preponderance of the evidence burden is appropriate even if both of the patents have issued by the time a section 291 interference proceeding is initiated in a district court.

Eli Lilly & Co., 376 F.3d at 1365. Accordingly, because the '353 patent issued from an application that had a later effective filing date than the '010 patent, M&I bears the burden of establishing priority by a preponderance of the evidence. See Medichem, S.A. v. Rolabo, S.L., 437 F.3d 1157, 1169 (Fed. Cir. 2006) (citing Eli Lilly & Co., 376 F.3d at 1365. Nonetheless, because both applications were co-pending, neither patent is presumed valid, and accordingly, M&I bears no heightened burden. See id.

M&I argues that it was the first to reduce to practice the technology claimed in the '353 patent, citing the July 2001 demonstration at its facility in Canada See Exs. F, G & H to Yazici Decl. Therefore, M&I argues, Plaintiffs must establish that they (1) conceived of their invention prior to M&I's conception and (2) exercised reasonable diligence from a time prior to M&I's conception until Plaintiffs' own reduction to practice. See In re Jolley, 308 F.3d 1317, 1326 (Fed. Cir. 2002) ("One who is first to conceive but last to reduce to practice is entitled to priority only on a showing of reasonable diligence extending from a time prior to the other party's conception to its own reduction to practice."); Brown v. Barbacid, 436 F.3d 1376, 1378 (Fed. Cir. 2006) ("The party that is first to conceive the invention in interference, if last to reduce the invention to practice, is entitled to

the patent based on prior conception if, as first to conceive, he exercised reasonable diligence from a time before the other party's conception date to his own reduction to practice date."). M&I argues that Plaintiffs have not established conception prior to M&I's July 2001 reduction to practice. Moreover, M&I notes that Miller must prove his conception by corroborating evidence, see Burroughs Wellcome Co. v. Barr Laboratories, Inc., 40 F.3d 1223, 1228 (Fed. Cir. 1994), and that testimony of a co-inventor cannot as a matter of law corroborate the testimony of another co-inventor, see Medichem, 437 F.3d at 1171. Because Miller's only corroborating evidence is Shultes's declaration, and Shultes is a claimed co-inventor, M&I argues, Plaintiffs cannot establish priority of invention. Notably, M&I points out, it was not until after July 2001 that Miller or Shultes even began to design or build a prototype. See M&I Reply Mem. of Law at 7, citing Miller Decl. ¶ 8.

In their opposition papers, Plaintiffs argue that Miller clearly stated to M&I that he invented the concept of arranging four induction units in a square, and for support they point to the August 14, 2001 letter from Datta to Miller acknowledging that the credit for the design should go to Miller. See Ex. 7 to Miller Decl. At oral argument, Plaintiffs further argue that it is undisputed that Miller was the first to conceive a system with four induction units in a square, and that significantly, M&I has not submitted a declaration from either Datta, who was president of M&I at the time of their alleged reduction to practice, or Akhtar, who is listed as an inventor on the '353 patent, to dispute Miller's and Shultes's declarations. See Tr., at 7:8-8:7. Plaintiffs also note that although Granek, who is the only other person listed as an inventor on the '353 patent, has stated that he has no recollection of Miller contributing to the invention set forth in the '353

patent, he also admits that his "memory of the events regarding development of the invention ... has faded as these events occurred a number of years ago." Granek Decl. ¶¶ 3, 5. Plaintiffs argue that the July 2001 demonstration was Miller's reduction to practice, not M&I's, and for support direct the court to the February 23, 2001 facsimile from Miller to Akhtar with attached diagrams of the test room and "quad model," as well as Miller's July 6, 2001 electronic message describing and confirming Akhtar's and Miller's respective planned roles at the demonstration. See Ex. 1 to Miller Decl.

Significant factual questions remain regarding M&I's alleged reduction to practice. While it is true that neither Akhtar nor Datta submitted declarations in support of M&I's pending motion, Miller's own statements evidence a collaborative effort, at least initially. For example, Miller states that he contacted Akhtar at Datta's suggestion and "asked him to implement [his concept of having a four-way induction unit]." Miller Decl. ¶ 6. Miller also states that while M&I simply arranged four single induction units in a square, which did not accomplish his goals, he nonetheless continued to work with Akhtar "to try to improve the M&I product ... [and] [a]fter several months, **we** decided to install a prototype at M&I's offices in Canada to see how it performed." Id. (emphasis added). Moreover, in his electronic message confirming the July 31, 2001 trip to M&I's facility, Miller explained what Datta's and Akhtar's respective roles would be at the demonstration, as well as his own, and then stated, "**We** will also be able to demonstrate the air flow patterns and effectiveness of the ventilation system through the use of smoke bombs." Ex. 1 to Miller Decl. (emphasis added).

The evidence also implies that Miller acknowledges some effort by M&I towards the development of the invention, although he is equivocal with his

approval regarding same. While explaining in his declaration that "[t]he demonstration showed **M&I's design** did not achieve my goals for the system[,]" Miller Decl. ¶ 8 (emphasis added), Miller told Datta by letter that "[t]he results that we have gotten at your demonstration room were as predicted[,]" Ex. 2 to Miller Decl. On the other hand, Datta wrote to Miller in reply, thanking him for "making every effort to demonstrate the ceiling mounted induction unit as being the possible, if not the best solution, for the upcoming school market[,]" and stating that "[t]he full credit goes to your commitment to augment the existing systems, which other consultants have left for someone in the future to address[,]" which would imply that the design and demonstration were Miller's, not M&I's. Ex. 7 to Miller Decl.

Accordingly, based on the evidence now before it, the court is unable to reach a conclusion that either M&I or Miller alone was the first to reduce the invention to practice. The evidence regarding conception is equally contradictory. "[T]he test for conception is whether the inventor had an idea that was definite and permanent enough that one skilled in the art could understand the invention; the inventor must prove his conception by corroborating evidence, preferably by showing a contemporaneous disclosure." Burroughs Wellcome Co., 40 F.3d at 1228. It is true, as M&I suggests, that "testimony of one co-inventor cannot be used to help corroborate the testimony of another." Medichem, 437 F.3d at 1171. However, "[i]ndependent corroboration may consist of testimony of a witness, other than the inventor, to the actual reduction to practice or it may consist of evidence of surrounding facts and circumstances independent of information received from the inventor." Id. (quoting Reese v. Hurst, 661 F.2d 1222, 1225 (C.C.P.A. 1981). The law does not require corroboration by evidence having a

source totally independent of the inventor and further, "circumstantial evidence of an independent nature can satisfy the corroboration requirement." Id. (citing Cooper v. Goldfarb, 154 F.3d 1321, 1330 (Fed. Cir. 1998).

Plaintiffs argue that the absence of testimonial evidence from either Datta or Akhtar contradicting Miller's and Shultes' allegations regarding conception or reduction to practice is significant. Nonetheless, the court cannot infer corroboration from the absence of contradicting testimonial evidence. However, there is some evidence here, albeit limited, independent of the Miller and Shultes declarations, that Miller, not Akhtar nor Granek, was the first to conceive of the invention. Datta, by his August 14, 2001 letter to Miller, indicates not only that "[w]e, at M&I, played a very small role in giving fruition[,]" but ends by thanking Miller "for your patience and commitment in allowing us to play a part with you in the fostering of this new concept." Ex. 7 to Miller Decl. The court declines to find corroboration, however, based on such limited evidence, especially considering that the purpose of the requirement for independent corroboration is to prevent fraud. See Medichem, 437 F.3d at 1170. Accordingly, because there is insufficient evidence before the court to decide the question of priority of invention, Plaintiffs have not met their burden to show that a substantial question of validity exists on this basis. Therefore, Plaintiffs cannot avoid a finding of a likelihood of success on the merits of M&I's infringement claim by relying on a priority of invention challenge.

Before concluding its discussion of Plaintiffs' validity challenges, the court is constrained to note that had Miller timely informed his patent attorney of even the possibility that Akhtar and Granek would be filing a patent application for a design that included four induction units in a square configuration, this entire

lawsuit may have been avoided. Generally the patent examiner "checks for interfering patent applications while they are pending, ... and if conflict is discovered the examiner will initiate interference proceedings or suggest that the applicant amend the application ... ." Vas-Cath, Inc. v. Curators of University of Missouri, 473 F.3d 1376, 1378 (Fed. Cir. 2007). However, even when the examiner does not act regarding interfering applications, an applicant can request that the examiner do so.

Here, the court notes that Miller states, "I was made aware that M&I was filing its own patent application on its embodiment of an induction assembly with four induction units (again, I presented the concept to them)." Miller Decl. ¶ 10. However, despite his awareness that Akhtar and Granek were applying for a patent, Miller notes that "[he] did not show [his April 3, 2002] email to [his] patent attorney to investigate what effect it would have on [his] pending patent application." Id. ¶ 13. At oral argument, the court pressed Plaintiffs to explain why Miller, by his own admission, failed to discuss with his patent attorney M&I's attempts to have him sign a declaration and power of attorney in connection with the '353 patent application. See Tr., at 13:19-14:17. Plaintiffs were unable to explain what this court would describe as a lack of judgment on Miller's behalf, except to note that Miller himself is not an attorney, ostensibly implying a certain lack of sophistication regarding the legal implications of both Miller and M&I having contemporaneously filed patent applications before the PTO regarding strikingly similar subject matter. However, had Miller's attorney been aware of a possible interference, the patent examiner may have been able to resolve this issue before the '353 patent issued, or shortly thereafter, eliminating the need for judicial involvement.

In any event, Plaintiffs may not avoid a finding of a likelihood of success on M&I's infringement claim based on their challenges to the validity of the '353 patent. Having found that M&I successfully established that it will be irreparably harmed absent a preliminary injunction, and Plaintiffs having stated on the record that they do not contest infringement of the '353 patent by their Q-4 model, M&I's motion for a preliminary injunction as to the Q-4 air terminal is granted.

The court now commences its analysis of the merits of M&I's infringement claim regarding the Q-360 model air terminal.

D. The Q-360

M&I argues that the Q-360 infringes Claims 15 and 18 of the '353 patent, and Plaintiffs oppose. Accordingly, a discussion of the law surrounding patent infringement claims as well as the procedure governing this court's analysis of same is warranted.

There are three forms of patent infringement defined by statute: direct, induced and contributory. See 35 U.S.C. §§ 271(a), (b) and (c). Liability for induced or contributory infringement is dependent upon the existence of direct infringement. See RF Delaware, Inc. v. Pacific Keystone Tech., Inc., 326 F.3d 1255, 1268 (Fed. Cir. 2003).

Direct infringement is defined as the making, using, selling or offering for sale the patented invention. See § 271(a). Direct infringement may be either literal or equivalent. See Cross Med. Prod., Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1310 (Fed. Cir. 2005). Literal infringement occurs when "each and every limitation set forth in a claim appear[s] in an accused product." Id. Equivalent infringement occurs when one appropriates another's patented invention with a product that is "substantially the same thing, used in the same

way, to achieve substantially the same result" as is described in a patent claim, which is known as the "doctrine of equivalents." Wolf v. Fisher-Price Toys, Div. of Quaker Oats Co., No. 90-CV-0925, 1992 WL 51498, at *8 (S.D.N.Y. Mar. 9, 1992) (quoting SRI Int'l v. Matsushita Elec. Corp. of America, 775 F.2d 1107, 1124 (Fed. Cir. 1985) (en banc)).

The doctrine of equivalents applies (1) when the equivalent represents an insubstantial change from the claim language; or (2) if it performs substantially the same function in substantially the same way to obtain the same result. See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 493 F.3d 1368, 1377 (Fed. Cir. 2007). The doctrine of equivalents is applied to individual elements of a claim, not to the invention as a whole, and application to an individual element should not be so broad as to effectively eliminate that element. See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1017 (Fed. Cir. 2006). This is referred to as the "all elements rule." Id. The all elements rule does not necessarily require a "one-to-one correspondence" between components of a device and the invention; instead, equivalency may exist when separate claim limitations are combined into a single component of the alleged infringing device, and the differences are insubstantial. Eagle Comtronics, Inc. v. Arrow Commc'n Labs., Inc., 305 F.3d 1303, 1317 (Fed. Cir. 2002).

If equivalence appears, infringement will be found unless (1) arguments or amendments made by the applicant during prosecution estop the patentee from asserting a range of equivalence broad enough to encompass the accused product (otherwise known as prosecution history estoppel), see Texas Instruments Inc. v. U.S. International Trade Commission, 988 F.2d 1165, 1173 (Fed. Cir.1993), or (2) the equivalent device is within the public domain, i.e., is found in the prior art,

see Hyperphrase Technologies, LLC v. Google, Inc., Nos. 2007-1125, 2007-1176, 260 Fed.App'x 274, 282 (Fed. Cir. 2007). As the alleged infringers, Plaintiffs bear the burden of establishing that the alleged equivalent device is in the prior art. See RF Delaware, Inc., 326 F.3d at 1267.

The two remaining types of infringement are induced and contributory. Pursuant to statute, "[w]hoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). In order to prevail on an inducement claim, the patentee must establish 'first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement.'" ACCO Brands, Inc. v. ABA Locks Mfr. Co., Ltd., 501 F.3d 1307, 1312 (Fed. Cir. 2007) (quoting Minn. Mining & Mfg. Co. v. Chemque, Inc., 303 F.3d 1294, 1304-05 (Fed. Cir. 2002) (internal citation omitted)). In order to establish "specific intent" the patentee must show "that the alleged infringer's actions induced infringing acts and that he knew or should have known his actions would induce actual infringements." Id. (quoting DSU Med. Corp. v. JMS Co., Ltd., 471 F.3d 1293, 1304 (Fed. Cir. 2006) (en banc in relevant part) (internal quotation omitted)).

Pursuant to statute,

> [w]hoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

35 U.S.C. § 271(c). In order to establish contributory infringement, a patentee

must prove direct infringement and that the alleged infringer "'knew that the combination for which its components were especially made was both patented and infringing' and that [the alleged infringer's] components have 'no substantial non-infringing uses.'" Cross Medical Products, Inc., 424 F.3d at1312 (quoting Golden Blount, Inc. v. Robert H. Peterson Co., 365 F.3d 1054, 1061 (Fed. Cir. 2004)).

"A determination of patent infringement requires a two-step analysis: first, the meaning of the claim language is construed, then the facts are applied to determine if the accused device falls within the scope of the claims as interpreted." MBO Labs., Inc. v. Becton, Dickinson & Co., 474 F.3d 1323, 1329 (Fed. Cir. 2007) (citing Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370, 116 S.Ct. 1384 (1996)). When interpreting claims, courts must view them "in the context of 'those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.'" MBO Labs., Inc., 474 F3d at 1329 (quoting Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc)). The most relevant of the intrinsic evidence is the patent's specification, followed by the prosecution history. See id. Extrinsic evidence, such as "testimony, dictionaries, learned treatises, or other material not part of the public record associated with the patent[,] may be helpful but is 'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" Id. (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Finally, words used in patent claims are to be interpreted to "have the meaning and scope with which they are used in the specification and the prosecution history." Id. (citing Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed.

Cir. 1998).

Here, in its moving papers, M&I argues that the Q-360 equivalently infringes at least Claim 18 of the '353 patent because it is insubstantially different from the invention set forth therein. M&I argues that when used, the Q-360 includes every element of at least Claim 18 or the equivalent. Therefore, unless Plaintiffs can show that M&I is barred by prosecution history estoppel or that the Q-360 is in the prior art, M&I argues, the Q-360 directly infringes the '353 patent under the doctrine of equivalents. M&I notes, and Plaintiffs do not appear to dispute, that prosecution history estoppel does not apply here because M&I did not make any amendments to the '353 patent application or any arguments to overcome rejection by the PTO. As for prior art, M&I contends that because Plaintiffs have a patent pending on the Q-360, they cannot argue that it is part of the prior art. Plaintiffs also do not appear to dispute that the Q-360 is not part of the prior art.

According to M&I, Plaintiffs also induce and contribute to infringement of Claim 18 of the '353 patent because the Q-360 has no other use than to be mounted adjacent the ceiling of an enclosed room of a building structure and Plaintiffs therefore intend purchasers of the Q-360 to mount it accordingly.

Regarding Miller, M&I argues that he aids and abets NuClimate's infringement and thus is personally liable for induced infringement under 35 U.S.C. § 271(b) regardless of whether NuClimate is the alter ego of Miller.

Plaintiffs counter that the Q-360 does not infringe the '353 patent because the '353 patent includes an assembly of four induction units, each with a separate air plenum and a separate air mixing chamber. The Q-360, on the other hand, is an induction system with a single induction unit, having a single plenum, air mixing

chamber and series of nozzles. See Pls.' Mem. of Law in Opp'n at 14, citing DiMillo Decl. at ¶¶ 11-17; Decl. of Michael I. Tatkow, P.E., June 23, 2008, Ex. 1 at 5-8.

Plaintiffs acknowledge that the law regarding the doctrine of equivalents states that equivalency may exist when separate claim limitations are combined into a single component of the alleged infringing device. Plaintiffs argue that such is not the case here. Plaintiffs note that

> the claim language specifically requires that the four induction units form the sides of the induction assembly. If the Q-360's induction unit were to be found the equivalent of four such units, that construction of the claims would eliminate the limitation that the four induction units form the sides of the induction assembly because the Q-360 induction unit has four sides, but cannot form the four sides of the assembly.

Pls.' Mem. of Law in Opp'n at 16-17.

In any event, Plaintiffs argue, the Q-360 does not perform the same function in the same way to achieve the same result as is required by the doctrine of equivalents. Plaintiffs note that the '353 patent disclosed an invention that has four separate induction units connected by piping, and within each unit, air induction and mixing occurs in separate chambers, each of which blows are separately through a vent. Each unit has its own nozzles and coil. In contrast, Plaintiffs point out, the Q-360 has a single mixing chamber where the nozzles surround a large coil, within which air is inducted and mixed and discharged through a vent. Consequently, Plaintiffs contend, the Q-360 is more efficient as it requires less energy because it is easier to pressurize and seal, and the number of joints is reduced, decreasing leakage. See Pls.' Mem. of Law in Opp'n at 17, citing DiMillo Decl. ¶¶ 20-21. Further, Plaintiffs argue, the single air mixing

chamber in the Q-360 is bigger than the invention described in the '353 patent, and therefore can handle more air, resulting in a greater induction potential.

In its reply papers, M&I contends for the first time that the Q-360 infringes Claim 15 as well as Claim 18 of the '353 patent. M&I argues that Plaintiffs impermissibly read features that are set forth in dependent claims into independent Claims 15 and 18. For example, M&I argues that the terms Plaintiffs identify as not in the Q-360, to wit, *unit*, *assembly*, *plenum* and *chamber*, are in fact either present in the Q-360 or not present in Claims 15 and 18. M&I argues that the Q-360 is at least the equivalent of Claims 15 and 18 despite Plaintiffs' argument, which M&I disputes, that it is an improvement over the Q-4. Even if the court determines that the Q-360 is an improvement, M&I argues, such a finding does not negate a finding of equivalent infringement. See M&I Reply Mem. of Law at 9, citing, e.g., Ryco, Inc. v. Ag-Bag Corp., 857 F.2d 1418, 1427 (Fed. Cir. 1988) ("That the accused device is an improvement on the claimed subject matter does not avoid infringement even under the doctrine of equivalents.").

At oral argument, Plaintiffs submitted as exhibits, and the court accepted, an actual Q-4 induction unit, an actual Q-360 induction unit, and scale model versions of each, made of clear plexiglass. See Pls.' Exs. 1 through 4, respectively. See also Tr., at 10:3-21; 33:12-25; 78:3-20; 79:6-12. Because, at oral argument, counsel for Plaintiffs utilized the Q-4 as an embodiment of the '353 patent for purposes of comparison with the Q-360, an issue was raised by M&I as to whether Plaintiffs were inappropriately comparing the Q-360 to the Q-4, instead of comparing the Q-360 to the elements of Claims 15 and 18 in the '353 patent. See Tr., at 10:22-25. M&I correctly argues that the alleged infringing device, here, the Q-360, must be compared to the patent claims rather than to a preferred

or commercial embodiment. See Amgen, Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1347 (Fed. Cir. 2003). Accordingly, to the extent Plaintiffs' arguments against a finding of infringement rely on a comparison of the Q-360 to the Q-4, the court declines to give any weight to same.

To begin with, the court must examine the claim language at issue. Claim 15 is as follows:

> An air handling system for a building having a ceiling and an enclosed space below said ceiling, said system comprising:
>
> four induction units adapted for mounting adjacent said ceiling and forming four sides of an induction unit assembly which is substantially rectangular in plan view, each of said units having a primary air intake section and an air mixing section that, during use of said system and when viewed in transverse, vertical cross-section extends downwardly at an angle of approximately 90 degrees to said ceiling to an air outlet formed at a lower end of the air mixing section, each air mixing section also having a side air inlet for permitting return air to flow through a side thereof into an air mixing chamber of the induction unit; and
>
> supporting members for mounting the rectangular induction unit assembly so that said assembly is located adjacent said ceiling during use of the system in the building,
>
> wherein during use of the system, said return air is drawn by a venturi effect into each air mixing chamber and said induction units are capable of delivering a mixture of primary air, taken from the primary air intake sections, and return air through the air outlets to said enclosed space.

Ex. A to Yazici Aff. Claim 18 is as follows:

> The combination of a building structure having an enclosed space and an air handling system capable of providing a mixture of primary air and return air to said enclosed space, said combination

comprising:

a horizontally extending ceiling and walls forming said building structure and defining said enclosed space;

four air induction units mounted adjacent said ceiling and forming an induction unit assembly which is substantially rectangular in plan view with each induction unit located on a respective side of the rectangle, each of said induction units having a primary air intake section and an air mixing section that as seen in transverse cross-section extends downwardly at an angle of about 90 degrees to said ceiling to an air outlet formed at a lower end of the air mixing section, each air mixing section also having a side air inlet for permitting return air to flow through a side thereof into an air mixing chamber of the induction unit; and

supporting frame members mounting said induction units adjacent said ceiling,

wherein, during use of said system, said return air from said enclosed space is drawn by a venturi effect created by each induction unit into the air mixing chambers and the four induction units deliver said mixture of primary air and return air through their air outlets to said enclosed space.

Id. Basically, Claim 15 describes an air handling system itself and Claim 18 provides for a combination of a building structure with an enclosed space and the air handling system. Each claim includes "four induction units" that form "an induction unit assembly," each unit of which contains a "primary air intake section and an air mixing section," as well as an "air mixing chamber." Ex. A to Yazici Aff., Claims 15 and 18. Because both Claims 15 and 18 are independent claims, the court is mindful that when interpreting the meaning of claim language, it must not import limitations in dependent claims into independent claims. See Baldwin Graphic Sys., Inc. v. Siebert, Inc., 512 F.3d 1338, 1345 (Fed. Cir. 2008).

Accordingly, M&I is correct when it points out that neither Claim 15 nor Claim 18 include as limitations a plenum, nozzles, or connective piping. In its reply papers, M&I submits an illustration, which was used during oral argument, in order to demonstrate the "embodiments that fall squarely within the literal terms of Claims 15 and 18." Reply Decl. of Muammer Yazici, June 30, 2008, ¶ 16, Dkt. No. 27 ("Yazici Reply Decl."). See also Tr. 25:5-9; 34:21-24. Plaintiffs point out that the diagram contains walls, which are not present in the Q-360. See Tr. 31:20-23; 32:16-25. M&I counters that the coils in the Q-360 are tight and form a wall, but nonetheless notes that there is no claim requirement for a wall, or a requirement that coils cannot form a wall. See Tr. 35:15-36:1. Plaintiffs reply that both Claims 15 and 18 require a chamber, which by definition includes walls. See Tr. 41:2-13. Moreover, Plaintiffs note, the Claims require four chambers, and the Q-360 only has one.

Considering the whole of the parties' arguments, the court is left with the conclusion that M&I cannot show a likelihood of success on its infringement claim against Plaintiffs regarding the Q-360. M&I argues that the Q-360 equivalently infringes Claims 15 and 18 of the '353 patent. However, both claims clearly include the limitation requiring four induction units. The Q-360 clearly only has one induction unit. As such, the court cannot conclude that the Q-360 represents an "insubstantial change" from the claim limitations of Claims 15 and 18 of the '353 patent, or that the Q-360 "performs substantially the same function in substantially the same way to obtain the same result." Festo Corp., 493 F.3d at 1377. Moreover, the "all elements rule" does not apply because no one component of the Q-360 includes a combination of claim limitations set forth in either Claim 15 or 18. See Eagle Comtronics, Inc., 305 F.3d at 1317. Claims 15

and 18 describe separate units, which combine to form an assembly. The Q-360 is one unit. Arguably, both the Q-360 and the '353 patented invention would perform the same function, to wit, the combination of primary and room air, which, once heated or cooled, is disbursed into an enclosed space. However, the function is performed entirely differently, the Q360 utilizing a single primary air intake section, a single air mixing section, and a single air mixing chamber, as opposed to the four primary air intake sections, four air mixing sections, and four chambers required by Claims 15 and 18 of the '353 patent.

For the aforementioned reasons, M&I has not established a likelihood of success on the merits of its infringement claim against Plaintiffs regarding the Q-360. That being the case, the court need not discuss irreparable harm, as M&I cannot prevail on its motion for a preliminary injunction without also establishing a likelihood of success. Accordingly, M&I's motion for a preliminary injunction regarding Plaintiffs' model Q-360 air terminal is denied.

IV. Conclusion

Pursuant to the foregoing analysis, the motion by defendant and counter-plaintiff, M&I Heat Transfer Products, Ltd., for a preliminary injunction pursuant to Fed. R. Civ. P. 65 enjoining plaintiffs and counter-defendants, NuClimate Air Quality Systems, Inc. and James Miller from infringement of U.S. Patent No. 6,623,353 is hereby DENIED in part and GRANTED in part, as follows:

It is ORDERED that the motion for a preliminary injunction insofar as it relates to Plaintiffs' model Q-360 air terminal is DENIED; and it is further

ORDERED that Plaintiffs are hereby enjoined from the further manufacture, use, sale, and/or offer for sale of its model Q-4 air terminal.

IT IS SO ORDERED.

DATED: July 24, 2008
Syracuse, New York

Neal P. McCurn
Senior U.S. District Judge